a body zone of a second conductivity type opposite of said first conductivity type introduced into said first main surface;

a zone of said first conductivity type disposed in said body zone;

a first electrode making contact with said zone and with said body zone;

Cont B2

a second electrode disposed on said second main surface;

an insulating layer disposed on said first main surface;

a gate electrode disposed above said body zone and separated from said body zone by said insulating layer; and

an intersection of said semiconductor body and said body zone defining a pn junction;

said semiconductor body having:

a layer thickness between said pn junction and said second main surface selected such that, when one of a maximum allowed blocking voltage and a voltage just less than this, is applied between said first electrode and

said second electrode, a space charge zone created in said semiconductor body meets said second main surface before a field strength E created by an applied blocking voltage reaches a critical value E_c at which an electrical breakdown is reached; and

a specific charge density $\rho(z)$ in a direction z between said pn junction and said second main surface such that:

Cond B2

$$\int_0^W \rho(z)dz \leq 0.9q_c$$

in which q_c denotes a critical value of the charge quantity q in said semiconductor body at which the electrical breakdown is reached, said change quantity q being linked to said electric field strength E between said first electrode and said second electrode by the above equation

$$\int_0^W \rho(z)dz = q \text{ and Poisson's equation } \nabla E = -4\pi\rho .$$